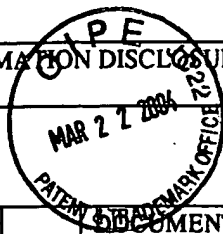


## Section 2. Form PTO - 1449 (Modified) (ATTACHMENT)

FORM PTO-1449 U.S. DEPT. OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO. QIL-1DIV	SERIAL NO. 10/694,687
	APPLICANT Ledentsov	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE 10/27/03	GROUP 2822



## U.S. PATENT DOCUMENTS

Exam Initial		DOCUMENT NUMBER	DATE	PATENTEE	CLASS	SUB	FILING DATE IF APPROPR
				See Attached			
MG	BG	5,210,051	05/11/93	Carter Jr.	438	22	
MG	BH	5,290,393	03/01/94	Nakamura	156	613	
MG	BI	5,306,662	04/26/94	Nakamura et al.	438	509	
MG	BJ	5,741,724	04/21/98	Ramdani et al.	438	46	
MG	Bk	5,838,029	11/17/98	Shakuda	257	190	
MG	BL	5,928,421	07/27/99	Yuri et al.	117	97	
MG	BM	5,972,801	10/26/99	Lipken et al.	438	770	
MG	BN	6,087,681	07/11/00	Shakuda	257	103	
MG	BO	6,153,010	11/28/00	Kiyoku et al.	117	95	
MG	BP	6,160,833	12/12/00	Floyd et al.	372	96	
MG	BQ	6,177,688	01/23/01	Linthicum	257	77	
MG	BR	6,194,742	02/27/01	Kern et al.	257	94	
MG	BS	6,287,947	09/11/01	Ludowise et al.	438	606	
MG	BT	6,498,111	12/24/02	Kapolnek et al.	438	762	
MG	BU	6,582,986	06/24/03	Kong et al.	438	48	
MG	BV	6,534,797	03/18/03	Edmond et al.	257	97	
MG	BW	6,537,513	03/25/03	Amano et al.	423	328.2	
MG	BX	6,602,763	08/05/03	Davis et al.	438	481	
MG	BY	6,627,974	09/30/03	Kozaki et al.	257	623	
MG	BZ	6,627,520	09/30/03	Kozaki et al.	438	479	
MG	CA	6,630,691	10/07/03	Mueller-Mach et al.	257	84	
MG	CB	6,630,692	10/7/03	Goetz et al.	257	94	
MG	CC	2002/0046693	04/25/02	Kiyoku et al.	117	8	
MG	CD	2003/0037722	02/27/03	Kiyoku et al.	117	84	
MG	CE	2003/0160232	08/28/03	Kozaki et al.	257	22	
MG	CF	5,482,890	01/09/96	Liu et al.	438	494	
MG	CG	5,888,885	03/30/99	Xie	438	493	

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam Initial		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB	TRANSLATION YES   NO

## OTHER PRIOR ART

Exam Initial		Author, Title, Date, Pertinent Pages, Etc
MG	CH	J.L. Liu, C.D. Moore, G.D. U'Ren, Y.H. Luo, Y. Lu, G. Lin, S.G. Thomas, M.S. Goorsky, K.L. Wang; "A surfactant-mediated relaxed Si <sub>3</sub> Ge <sub>3</sub> graded layer with a very low threading dislocation density and smooth

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3-3-05

		surface", Applied Physics Letters, Vol. 75 (11), pp. 1586-1588 (1999).
MG	CJ	Y. Takano, K. Kobayashi, H. Iwahori, N. Kuwahara, S. Fuke, S. Shirakata; "Low temperature growth of InGaAs layers on misoriented GaAs substrates by metalorganic vapor phase epitaxy", Applied Physics Letters, Vol. 80 (12), pp. 2054-2056 (2002).
MG	CK	M.J. Manfra, N.G. Weimann, J.W.P. Hsu, L.N. Pfeiffer, K.W. West, S.N.G. Chu; "Dislocation and morphology control during molecular-beam epitaxy of AlGaIn/GaN heterostructures directly on sapphire substrates"; Applied Physics Letters 81 (8), pp. 1456-1458 (2002).
MG	CL	O. Conteras, F.A. Ponce, J. Christen, A. Dadgar, A. Krost; "Dislocation annihilation by silicon delta-doping in GaN epitaxy on Si"; Applied Physics Letters 81 (25), pp. 4712-4714 (2002).
MG	CM	A.D. Capewell, T.J. Grasby, T.E. Whall, E.H.C. Parker; "Terrace grading of SiGe for high quality virtual substrates"; Applied Physics Letters 81 (25), pp. 4775-4777 (2002).
MG	CN	"Vertical-Cavity Surface-Emitting Lasers: Design, Fabrication, Characterization, and Applications"; by C.W. Wilmsen, H. Temkin, L.A. Coldren (editors), Cambridge University Press, 1999
MG	CO	N.N. Ledentsov, V.A. Shchukin; "Novel Concepts for Injection Lasers", Optical Engineering, Vol. 41 (12), pp. 3193-3203 (2002).
MG	CP	N.N. Ledentsov et al., "1.3 um Luminescence and Gain From Defect-Free InGaAs-GaAs Quantum Dots Grown By Metal-Organic Chemical Vapor Deposition." Semicond. Sci. Technol. 15, 2000, pp. 604-607
EXAMINER		DATE CONSIDERED
Yana Guerrero		3-3-05

Section 2. Form PTO - 1449 (Modified) (ATTACHMENT)



FORM PTO-1449 U.S. DEPT. OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO. QIL-1	SERIAL NO. 10694687
	APPLICANT Ledentsov	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE 05/04/01 10/27/03	GROUP 2822

U.S. PATENT DOCUMENTS

Exam Initial		DOCUMENT NUMBER	DATE	PATENTEE	CLASS	SUB	FILING DATE IF APPROPR
MG	AA	4,806,996	02/21/89	Luryi, S.	357	16	
MG	AB	5,019,874	05/28/91	Inoue et al	357	16	
MG	AC	5,075,744	12/24/91	Tsui, R.K.	357	22	
MG	AD	5,091,767	02/25/92	Bean et al	357	60	
MG	AE	5,156,995	10/20/92	Fitzgerald Jr., et al	438	499	
MG	AF	5,208,182	05/04/93	Narayan et al	438	509	
MG	AG	5,719,894	02/17/98	Jewell et al	372	45	
MG	AH	5,859,864	01/12/99	Jewell, J.	372	45	
MG	AI	5,927,995	07/27/99	Chen et al	438	517	
MG	AJ	5,960,018	09/28/99	Jewell et al	372	45	

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam Initial		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB	TRANSLATION YES   NO
	A						

OTHER PRIOR ART

Exam Initial		Author, Title, Date, Pertinent Pages, Etc
MG	AK	Chen, Y. et al, 1995, "Nucleation of misfit dislocations in In <sub>0.2</sub> Ga <sub>0.8</sub> As epilayers grown on GaAs substrates", Appl. Phys. Lett 66 (4) 499-501
MG	AL	Huffaker, D.L. et al, 1998, "1.3 μm room-temperature GaAs-based quantum-dot laser", Appl Phys. Lett. 73 918), pp 2563-3566
MG	AM	Bhum, O. et al, 2000, "Characteristics of GaAsSb Single-Quantum-Well-Lasers Emitting Near 1.3 μm", IEEE Photonics Technology Letters, Vol. 12, No. 7, pp 771-773.
MG	AN	Nakahara, K. et al, 1998, "1.3 μm Continuous-Wave Lasing Operation in GaInAs Quantum-Well Lasers", IEEE Photonics Technology Letters, Vol 10, No. 4, pp 487-488.
MG	AO	Schlenker, D. et al, 1999, "1.17 μm Highly Strained GaInAs-GaAs Quantum-Well Laser", IEEE Photonics Technology Letters, Vol 11, No. 8, pp. 946-948
MG	AP	Lee, B. et al, 1996, "Optical properties of InGaAs linear graded buffer layers on GaAs grown by metalorganic chemical vapor deposition" Appl. Phys. Lett. 68 (21), pp 2973-2975
MG	AQ	Roan, E.J. et al, 1991, "Long-wavelength (1.3 μm) luminescence in InGaAs strained quantum-well structures grown on GaAs", Appl. Phys. Lett. 59 (21), pp 2688 2690.
MG	AR	Herman, M.A. et al, 1991, "Heterointerfaces in quantum wells and epitaxial growth processes: Evaluation by luminescence techniques" J. Appl. Phys. 70 (2), pages 52

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MG	AS	Elman, B. et al, 1989, "In situ measurements of critical layer thickness and optical studies of InGaAs quantum wells grown on GaAs substrates", Appl. Phys. Letter. 55 (16), pp 1659-1661.
MG	AT	Alferov, Zh. et al, 1971, "Investigation of the Influence of the AlAs-GaAs Heterostructure Parameters on the Laser Threshold Current and The Realization of Continuous Emission at Room Temperature", Soviet Physis - Semiconductors, Vol. 4, No. 9, pp 1573-1575
MG	AU	Alferov, Zh. et al, 1970, "AlAs-GaAs Heterojunction Injection Lasers With A Low Room-Temperature Threshold", Soviet Physis - Semiconductors, Vol. 3, No. 9, pp 1107-1110
MG	AV	Gourley, P.L. et al, 1988, "Controversy of Critical Layer Thickness for InGaAs/GaAs strained-layer Epitaxy", Appl. Phys. Lett. 52 (5), pp 377-379.
MG	AW	Tsang, W.T., 1981, "Extension of lasing wavelengths beyond 0.87 $\mu\text{m}$ in GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As double-heterostructure lasers by In incorporation in the GaAs active layers during molecular beam epitaxy", Appl. Phys. Lett. 38 (9), pp 661-663
MG	AX	Hayashi, I. et al, 1970, "Junction Lasers which Operate Continuously At Room Temperature", Applied Physics Letters, Vol: 17, No. 3, pp 109-111
MG	AY	Goldstein, L. et al, 1985, "Growth by molecular beam epitaxy and characterization of InAs/GaAs strained-layer superlattices", Appl. Phys. Lett. 47 (10), pp 1099-1101
MG	AZ	Beanland, R. et al, 1997, "Relaxation of strained epitaxial layers by dislocation rotation, reaction and generation during annealing", Inst. Phys. Conf. Ser. No. 157, pp 145-148
MG	BB	Glas, F. et al, 1987, "TEM study of the molecular beam epitaxy island growth of InAs on GaAs", Inst. Phys. Conf. Ser. No. 87: Section 2, pp 71-76

Maria Guerrero _____ _____	DATE CONSIDERED 3-3-05
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## Section 2. Form PTO - 1449 (Modified) (ATTACHMENT)

FORM PTO-1449 U.S. DEPT. OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO. QIL-1	SERIAL NO. 09/851,730
	APPLICANT Nikolai Ledentsov	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE May 9, 2001	GROUP 2822

## U.S. PATENT DOCUMENTS

Exam Initial	DOCUMENT NUMBER	DATE	PATENTEE	CLASS	SUB	FILING DATE IF APPROPR

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam Initial	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB	TRANSLATION YES   NO

## OTHER PRIOR ART

Exam Initial		Author, Title, Date, Pertinent Pages, Etc
MG	BC	Scott A. McHugo and William D. Sawyer 'Impurity decoration of defects in float zone and polycrystalline silicon via chemomechanical polishing" Applied Physics Letters (1993) Volume 62, Issue 20, pp. 2519-2521
MG	BD	B. Shen, X. Y. Zhang, K. Yang, P. Chen, R. Zhang, Y. Shi, Y. D. Zheng, T. Sekiguchi and K. Sumino 'Gettering of Fe impurities by bulk stacking faults in Czochralski-grown silicon" Applied Physics Letters (1997) Volume 70, Issue 14, pp. 1876-1878
MG	BE	M. Herrera Zaldivar, P. Fernandez, and J. Pique 'Study of defects in GaN films by cross-sectional cathodoluminescence" Journal of Applied Physics (1998) -Volume 83, Issue 5, pp. 2796-2799
MG	BF	Ledentsov, N. N. "Long-Wavelength Quantum-Dot Lasers on GaAs substrates: From Media to Device Concepts" IEEE Journal of Selected Topics in Quantum Electronics, Vol. 8, No. 5, September/October 2002 pp. 1015-1024
EXAMINER		DATE CONSIDERED
Maria Guerrero		3-3-05